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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,498	10/24/2003	Alin Theodor Iacob	NSC-P05646	9271

7590 02/08/2005

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EXAMINER	
YOUNG, BRIAN K	

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H·A

Office Action Summary	Application No.	Applicant(s)	
	10/692,498	IACOB, ALIN THEODOR	
	Examiner	Art Unit	
	Brian Young	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *15-28* is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☒ Claim(s) *2-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/24/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Manley et al. Manley et al. disclose (fig.3) a circuit system, including a digital-to-analog converter (DAC) using a differential architecture (DIFF DRIVER 316) comprising a first output (to dump resistor 326) and a second output (to load resistor / Vout) working opposite phase; an output circuit coupled to said first output, said output circuit configured to drive an external load (RL); a dumping circuit (dumping resistor (326) coupled to said second output configured such that said dumping circuit is balanced with said output circuit when said external load coupled to said output circuit; and a determining circuit (Decode (312)/ Decode Output Registers/ Diff Driver 316) for controlling said first output and said second output to determine whether said dumping circuit is balanced with said output circuit. The balancing occurs as switches (322, 324) are activated.

3. Claims 2-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 15-28 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: a determining circuit that comprises an adding circuit to calculate a summed voltage of said first voltage and said second voltage and a comparator for comparing

said summed voltage to a reference voltage has not been taught. Likewise, a method for detecting a load, comprising calculating a summed voltage of a first voltage from R first output and a second voltage from a second output of a digital-to-analog converter (DAC) that is enabled, wherein said first output and said second output work in opposite phase, and wherein said first output is coupled to an output circuit configured to receive an external load; and determining if a dumping circuit coupled to said second output is balanced with said output circuit to determine if said external load is present, wherein said circuit is balanced with said output circuit when said external load is coupled to said output circuit has not been taught.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brunheim discloses a digital to analog converter for converting floating point digital samples comprising a mantissa and an exponent to output analog values comprising:

a source of said floating point digital samples; digital to analog conversion means for converting fixed point digital samples to analog values; analog scaling means coupled to an output of said digital to analog conversion means and having an output terminal at which said output analog values are available, said analog scaling means having a control input terminal for providing variable scaling control signals to said scaling means, and said analog scaling means exhibiting processing inaccuracies corresponding to respective control signals; memory means programmed with digital correction values corresponding to said processing inaccuracies; means coupling the exponents of said floating point digital values to said control input terminal, and to said

memory means for accessing respective correction values; digital sample scaling means coupled between said source and said digital to analog conversion means for coupling scaled mantissa values of said floating point samples to said digital to analog conversion means, said digital scaling means having a control input terminal for providing variable scaling control signals thereto; and means for coupling respective correction values from said memory means to the control input terminal of said digital scaling means.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Young whose telephone number is 571-272-1816. The examiner can normally be reached on Mon-Fri 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Young
Primary Examiner
Art Unit 2819